



SEQUENCE LISTING

<110> WANG, ELIZABETH A.
WOZNEY, JOHN M.
ROSEN, VICKI A.

<120> NOVEL BMP PRODUCTS

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<140> 09/804,625

<141> 2001-03-09

<150> 08/925,779

<151> 1997-09-09

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<151> 1991-06-14

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<150> 07/406,217

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<151> 1988-04-08

<150> 07/028,285

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<150> 06/943,332

<151> 1986-12-17

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<150> PCT/US87/01537

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<170> PatentIn Ver. 3.3

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gca aaa cac aaa cag cgg aaa cgc ctc aag tcc agc tgt aag aga cac 96
Ala Lys His Lys Gln Arg Lys Arg Leu Lys Ser Ser Cys Lys Arg His
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cct tta tat gtg gac ttc agt gat gtg ggg tgg aat gac tgg atc gtt 144
Pro Leu Tyr Val Asp Phe Ser Asp Val Gly Trp Asn Asp Trp Ile Val
35 40 45

gca ccg ccg ggg tat cat gcc ttt tac tgc cat ggg gag tgc cct ttt 192
Ala Pro Pro Gly Tyr His Ala Phe Tyr Cys His Gly Glu Cys Pro Phe
50 55 60

ccc ctg gcc gat cac ctt aac tcc acg aat cat gcc att ctc caa act 240
Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile Leu Gln Thr
65 70 75 80

ctg gtc aac tca gtt aac tct aag att ccc aag gca tgc tgt gtc cca 288
Leu Val Asn Ser Val Asn Ser Lys Ile Pro Lys Ala Cys Cys Val Pro
85 90 95

aca gag ctc agc gcc atc tcc atg ctg tac ctt gat gag aat gag aag 336
Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu Asn Glu Lys
100 105 110

gtg gta tta aag aac tat cag gac atg ggt gtc gag ggt tgt ggg tgt 384
Val Val Leu Lys Asn Tyr Gln Asp Met Gly Val Glu Gly Cys Gly Cys
115 120 125

cgt tagcacagca aaataaaata taaatatata tatatatata ttagaaaaac 437
Arg

agcaaaaaaaaa tcaagttgac actttaatat ttccaatga agactttatt tatggaatgg 497

aatggagaaa aagaaaaaca cagctatattt gaaaactata tttatatcta ccgaaaagaa 557

gttgggaaaa caaatatattt aatcagagaa ttatt 592

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<213> Bos taurus

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35 40 45

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 Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile Leu Gln Thr
 65 70 75 80
 Leu Val Asn Ser Val Asn Ser Lys Ile Pro Lys Ala Cys Cys Val Pro
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 gacattcggg ccttgcgcca ggtcctttga ccagagtttt tccatgtgga cgctctttca 300
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aga ccc acc ccc agc agg gac gcc gtg gtg ccc ccc tac atg cta gac	598
Arg Pro Thr Pro Ser Arg Asp Ala Val Val Pro Pro Tyr Met Leu Asp	
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Leu Tyr Arg Arg His Ser Gly Gln Pro Gly Ser Pro Ala Pro Asp His	
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Arg Leu Glu Arg Ala Ala Ser Arg Ala Asn Thr Val Arg Ser Phe His	
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His Glu Glu Ser Leu Glu Glu Leu Pro Glu Thr Ser Gly Lys Thr Thr	
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acc tca gca gag ctt cag gtt ttc cga gaa cag atg caa gat gct tta	838
Thr Ser Ala Glu Leu Gln Val Phe Arg Glu Gln Met Gln Asp Ala Leu	
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Gly Asn Asn Ser Ser Phe His His Arg Ile Asn Ile Tyr Glu Ile Ile	
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aaa cct gca aca gcc aac tcg aaa ttc ccc gtg acc aga ctt ttg gac	934
Lys Pro Ala Thr Ala Asn Ser Lys Phe Pro Val Thr Arg Leu Leu Asp	
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acc agg ttg gtg aat cag aat gca agc agg tgg gaa agt ttt gat gtc	982
Thr Arg Leu Val Asn Gln Asn Ala Ser Arg Trp Glu Ser Phe Asp Val	
195 200 205	
acc ccc gct gtg atg cgg tgg act gca cag gga cac gcc aac cat gga	1030
Thr Pro Ala Val Met Arg Trp Thr Ala Gln Gly His Ala Asn His Gly	
210 215 220 225	
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Phe Val Val Glu Val Ala His Leu Glu Glu Lys Gln Gly Val Ser Lys	
230 235 240	
aga cat gtt agg ata agc agg tct ttg cac caa gat gaa cac agc tgg	1126
Arg His Val Arg Ile Ser Arg Ser Leu His Gln Asp Glu His Ser Trp	
245 250 255	
tca cag ata agg cca ttg cta gta act ttt ggc cat gat gga aaa ggg	1174
Ser Gln Ile Arg Pro Leu Leu Val Thr Phe Gly His Asp Gly Lys Gly	
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cat cct ctc cac aaa aga gaa aaa cgt caa gcc aaa cac aaa cag cgg 1222
 His Pro Leu His Lys Arg Glu Lys Arg Gln Ala Lys His Lys Gln Arg
 275 280 285

aaa cgc ctt aag tcc agc tgt aag aga cac cct ttg tac gtg gac ttc 1270
 Lys Arg Leu Lys Ser Ser Cys Lys Arg His Pro Leu Tyr Val Asp Phe
 290 295 300 305

agt gac gtg ggg tgg aat gac tgg att gtg gct ccc ccg ggg tat cac 1318
 Ser Asp Val Gly Trp Asn Asp Trp Ile Val Ala Pro Pro Gly Tyr His
 310 315 320

gcc ttt tac tgc cac gga gaa tgc cct ttt cct ctg gct gat cat ctg 1366
 Ala Phe Tyr Cys His Gly Glu Cys Pro Phe Pro Leu Ala Asp His Leu
 325 330 335

aac tcc act aat cat gcc att gtt cag acg ttg gtc aac tct gtt aac 1414
 Asn Ser Thr Asn His Ala Ile Val Gln Thr Leu Val Asn Ser Val Asn
 340 345 350

tct aag att cct aag gca tgc tgt gtc ccg aca gaa ctc agt gct atc 1462
 Ser Lys Ile Pro Lys Ala Cys Cys Val Pro Thr Glu Leu Ser Ala Ile
 355 360 365

tcg atg ctg tac ctt gac gag aat gaa aag gtt gta tta aag aac tat 1510
 Ser Met Leu Tyr Leu Asp Glu Asn Glu Lys Val Val Leu Lys Asn Tyr
 370 375 380 385

cag gac atg gtt gtg gag ggt tgt ggg tgt cgc tagtacagca aaattaaata 1563
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 35 40 45
 Val Leu Ser Glu Phe Glu Leu Arg Leu Leu Ser Met Phe Gly Leu Lys
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Glu Ile Gln Gly His Ala Gly Gly Arg Arg Ser Gly Gln Ser His Glu
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ctc ctg cgg gac ttc gag gcg aca ctt ctg cag atg ttt ggg ctg cgc 606
Leu Leu Arg Asp Phe Glu Ala Thr Leu Leu Gln Met Phe Gly Leu Arg
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cgc cgc ccg cag cct agc aag agt gcc gtc att ccg gac tac atg cgg 654
Arg Arg Pro Gln Pro Ser Lys Ser Ala Val Ile Pro Asp Tyr Met Arg
  70 75 80
gat ctt tac cgg ctt cag tct ggg gag gag gag gaa gag cag atc cac 702
Asp Leu Tyr Arg Leu Gln Ser Gly Glu Glu Glu Glu Glu Glu Gln Ile His
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Val Arg Ser Phe His His Glu Glu His Leu Glu Asn Ile Pro Gly Thr	
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Ser Glu Asn Ser Ala Phe Arg Phe Leu Phe Asn Leu Ser Ser Ile Pro	
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Val Asp Gln Gly Pro Asp Trp Glu Arg Gly Phe His Arg Ile Asn Ile	
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Tyr Glu Val Met Lys Pro Pro Ala Glu Val Val Pro Gly His Leu Ile	
185 190 195	
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Thr Arg Leu Leu Asp Thr Arg Leu Val His His Asn Val Thr Arg Trp	
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265 270 275	
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310 315 320	

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 Cys Pro Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile
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 Cys Val Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu
 375 380 385

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Phe Gly Leu Arg Arg Arg Pro Gln Pro Ser Lys Ser Ala Val Ile Pro
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 85 90 95
 Glu Gln Ile His Ser Thr Gly Leu Glu Tyr Pro Glu Arg Pro Ala Ser
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 Arg Ala Asn Thr Val Arg Ser Phe His His Glu Glu His Leu Glu Asn
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 Ile Pro Gly Thr Ser Glu Asn Ser Ala Phe Arg Phe Leu Phe Asn Leu
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 145 150 155 160
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 Gly His Leu Ile Thr Arg Leu Leu Asp Thr Arg Leu Val His His Asn
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 225 230 235 240
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 Val Thr Phe Gly His Asp Gly Arg Gly His Ala Leu Thr Arg Arg Arg
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 325 330 335
 Cys His Gly Asp Cys Pro Phe Pro Leu Ala Asp His Leu Asn Ser Thr
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 Asn His Ala Ile Val Gln Thr Leu Val Asn Ser Val Asn Ser Ser Ile
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